



Manufacturers' Shipments, Inventories, and Orders

April 1972



U.S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

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SUMMARY

New orders for manufactured products in April increased \$390 million or 0.6 percent to \$63.93 billion from \$63.54 billion in March after seasonal adjustment. Shipments increased \$730 million or 1.2 percent to \$63.63 billion from \$62.90 billion in March. Unfilled orders increased \$310 million or 0.4 percent to \$81.46 billion at the end of April. Manufacturers' inventories decreased \$160 million to \$101.08 billion at the end of April. The inventories to shipments ratio decreased from 1.61 to 1.59.

For the 3 months ending in April, the average month-to-month change in new orders was an 0.5 percent increase compared with a 3.1 percent increase for the 3 months ending in January and an 0.4 percent decrease for the 3 months ending in October.

NEW ORDERS

New orders for durable goods increased \$410 million or 1.2 percent to \$35.50 billion in April.

New orders for aircraft and parts and motor vehicles and parts increased \$290 million and \$140 million respectively. Among the supplementary series, new orders for defense products increased \$200 million.

SHIPMENTS

Shipments of durable goods increased \$650 million or 1.9 percent to \$35.24 billion in April. This increase was spread over all industries. Shipments of nondurable goods increased \$80 million or 0.3 percent to \$28.39 billion.

UNFILLED ORDERS

Unfilled orders for durable goods increased \$270 million or 0.3 percent to \$77.84 billion at the end of April. Among the supplementary series, unfilled orders for producers' capital goods increased \$230 million or 1.0 percent to \$24.74 billion.

INVENTORIES

Inventories of both durable and nondurable goods decreased \$80 million each in April. At the all manufacturing level, materials and supplies increased \$60 million, work-in-process decreased \$190 million, and finished goods decreased \$40 million.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for May is scheduled for release on June 21, 1972 and the full report is scheduled for release on June 30, 1972.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Industry Division, Washington D.C. 20233.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Apr. 1972 ^P	Mar. 1972 ^r	Feb. 1972	Apr. 1972 ^P	Mar. 1972 ^r	Apr. 1971	Apr. 1972 ^P	Mar. 1972 ^r	Feb. 1972	Apr. 1972 ^P	Mar. 1972 ^r	Apr. 1971
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	63,627	62,901	61,865	64,496	64,609	58,379	101,082	101,244	101,033	101,918	101,696	101,257
Total, excluding transportation.....	55,400	54,817	53,647	56,021	56,069	50,825	87,029	87,260	87,183	87,798	87,626	87,259
Durable goods industries, total.....	35,241	34,594	34,013	36,102	35,992	32,003	64,872	64,950	64,769	65,489	65,281	65,649
Stone, clay, and glass products.....	2,038	2,101	2,048	2,070	2,047	1,754	2,241	2,220	2,235	2,328	2,304	2,352
Primary metals, total.....	5,438	5,294	5,154	5,819	5,577	5,694	9,581	9,564	9,459	9,537	9,541	9,291
Blast furnaces, steel mills.....	2,523	2,440	2,344	2,725	2,618	2,880	5,200	5,153	5,071	5,101	5,086	4,944
All other primary metals.....	2,915	2,854	2,810	3,094	2,959	2,814	4,381	4,411	4,388	4,436	4,455	4,347
Fabricated metal products, total.....	3,804	3,671	3,566	3,903	3,736	3,548	6,859	7,087	7,183	6,996	7,088	7,281
Metal cans, barrels, and drums.....	404	391	391	411	384	317	703	749	762	738	739	747
Machinery, except electrical, total.....	5,639	5,531	5,314	5,844	5,870	4,956	13,355	13,365	13,425	13,523	13,500	14,053
Engines and turbines.....	303	346	370	304	380	306	1,022	1,011	997	1,030	1,009	944
Farm machinery and equipment.....	554	561	494	642	649	505	1,155	1,130	1,119	1,182	1,176	1,152
Construction, mining, and material handling equipment.....	934	913	911	1,021	961	865	2,522	2,581	2,610	2,565	2,625	2,673
Metalworking machinery.....	444	440	408	434	483	336	1,161	1,167	1,167	1,169	1,166	1,229
General industrial machinery.....	454	481	455	465	492	403	1,129	1,112	1,138	1,141	1,128	1,199
Electrical machinery, total.....	5,108	5,005	4,937	4,967	5,175	4,218	9,899	9,885	9,823	10,026	9,883	10,136
Electrical transmission and distribution equipment and industrial apparatus.....	1,000	1,014	996	1,031	1,078	862	2,272	2,300	2,292	2,281	2,311	2,239
Household appliances, including radio and TV.....	1,214	1,128	1,069	1,017	1,119	886	1,871	1,837	1,811	1,940	1,820	1,972
Communication equipment.....	1,335	1,277	1,232	1,377	1,332	1,249	3,005	3,042	3,012	3,020	3,048	3,069
Transportation equipment, total.....	8,227	8,084	8,218	8,475	8,540	7,554	14,053	13,984	13,850	14,120	14,070	13,998
Motor vehicles and parts.....	5,655	5,466	5,559	5,851	5,809	4,895	4,036	3,988	3,938	4,020	4,016	4,060
Aircraft, missiles, and parts.....	1,947	1,904	1,972	1,946	2,008	1,997	7,580	7,580	7,550	7,597	7,594	7,922
Instruments and related products.....	1,083	1,021	1,009	1,033	1,010	960	2,490	2,475	2,494	2,533	2,487	2,403
All other durable goods industries.....	3,904	3,887	3,767	3,991	4,037	3,319	6,391	6,370	6,300	6,426	6,408	6,135
Nondurable goods industries, total.....	28,386	28,307	27,852	28,394	28,617	26,376	36,210	36,294	36,264	36,429	36,415	35,608
Food and kindred products, total.....	9,570	9,519	9,421	9,222	9,436	8,570	9,136	9,163	9,227	8,965	9,006	8,594
Meat products.....	2,090	2,031	2,011	2,039	2,039	1,931	818	797	786	847	821	843
Tobacco products.....	517	526	532	509	511	463	2,339	2,320	2,312	2,388	2,427	2,261
Textile mill products.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Paper and allied products, total.....	2,416	2,426	2,431	2,425	2,468	2,148	2,721	2,739	2,739	2,758	2,746	2,762
Pulp, paper, etc.....	972	971	964	981	997	910	1,000	1,001	994	1,010	1,007	1,030
Chemicals and allied products, total.....	4,647	4,637	4,582	4,939	4,756	4,537	6,639	6,711	6,684	6,736	6,830	6,846
Industrial chemicals, except pigments.....	1,449	1,458	1,474	1,552	1,496	1,486	1,864	1,853	1,868	1,886	1,902	1,887
Petroleum and coal products.....	2,578	2,528	2,470	2,530	2,452	2,323	2,333	2,328	2,378	2,311	2,315	2,327
Rubber and plastics products, n.e.c.....	1,779	1,718	1,666	1,871	1,791	1,618	2,238	2,217	2,171	2,276	2,245	2,178
All other nondurable goods industries.....	6,879	6,953	6,750	6,898	7,203	6,717	10,804	10,816	10,753	10,995	10,846	10,640
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	63,927	63,541	62,514	64,978	65,202	57,433	81,462	81,153	80,519	81,897	81,420	81,713
Total, excluding transportation.....	55,588	55,660	54,110	56,411	56,918	50,210	55,625	55,429	54,591	56,225	55,841	56,194
Durable goods industries, total.....	35,500	35,095	34,505	36,512	36,454	31,032	77,839	77,573	77,078	78,267	77,859	78,612
Primary metals, total.....	5,468	5,515	5,248	5,881	5,846	5,184	6,274	6,243	6,022	6,817	6,756	8,342
Blast furnaces, steel mills.....	2,511	2,523	2,454	2,748	2,777	2,506	3,329	3,341	3,258	3,791	3,769	5,242
Fabricated metal products.....	3,716	3,780	3,611	3,914	3,858	3,613	10,556	10,644	10,534	10,647	10,636	11,152
Machinery, except electrical, total.....	5,772	5,733	5,512	6,054	6,097	4,837	15,386	15,252	15,052	15,450	15,242	14,378
Engines and turbines.....	412	427	423	388	427	233	5,265	5,155	5,075	5,239	5,156	4,828
Construction, mining, and material handling equipment.....	930	984	855	1,034	1,054	890	2,509	2,514	2,442	2,612	2,599	2,396
Metalworking machinery.....	437	488	419	448	516	311	1,061	1,067	1,019	1,067	1,053	1,068
General industrial machinery.....	465	448	496	493	481	425	1,467	1,456	1,489	1,460	1,432	1,249
Electrical machinery, total.....	5,094	5,034	4,898	4,917	5,156	4,140	14,306	14,319	14,291	14,202	14,252	14,067
Electrical transmission and distribution equipment and industrial apparatus.....	1,079	1,032	945	1,091	1,103	849	3,949	3,870	3,852	4,013	3,953	3,856
Household appliances, including radio and TV.....	1,236	1,191	1,062	1,043	1,155	859	780	757	695	737	711	637
Communication equipment.....	1,213	1,265	1,305	1,222	1,284	1,244	5,952	6,073	6,085	5,809	5,964	5,720
Transportation equipment, total.....	8,339	7,881	8,404	8,567	8,284	7,223	25,837	25,724	25,928	25,672	25,579	25,519
Aircraft, missiles, and parts.....	2,110	1,818	1,744	2,083	1,962	1,820	17,794	17,631	17,717	17,818	17,681	18,585
All other durable goods industries.....	7,111	7,152	6,691	7,179	7,213	6,035	5,480	5,391	5,251	5,479	5,394	5,154
Nondurable goods industries, total.....	28,427	28,446	28,009	28,466	28,748	26,401	3,623	3,580	3,441	3,630	3,561	3,101
Industries with unfilled orders.....	7,613	7,850	7,702	7,644	7,949	6,952	3,623	3,580	3,441	3,630	3,561	3,101
Industries without unfilled orders.....	20,814	20,596	20,307	20,822	20,799	19,449	-	-	-	-	-	-

- Represents zero. ^PPreliminary. ^rRevised.¹Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Apr. 1972 ^D	Mar. 1972 ^r	Feb. 1972	Apr. 1972 ^D	Mar. 1972 ^r	Apr. 1971	Apr. 1972 ^D	Mar. 1972 ^r	Feb. 1972	Apr. 1972 ^D	Mar. 1972 ^r	Apr. 1971
	Shipments						Total inventories					
All manufacturing industries, total..	63,627	62,901	61,865	64,496	64,609	58,379	101,082	101,244	101,033	101,918	101,696	101,257
Durable goods industries, total.....	35,241	34,594	34,013	36,102	35,992	32,003	64,872	64,950	64,769	65,489	65,281	65,649
Nondurable goods industries, total.....	28,386	28,307	27,852	28,394	28,617	26,376	36,210	36,294	36,264	36,429	36,415	35,608
Industry groups arranged by market categories:												
Home goods and apparel.....	5,847	5,713	5,500	5,626	5,978	5,315	10,930	10,963	10,939	11,195	10,964	10,778
Consumer staples.....	12,254	12,256	12,148	11,913	12,149	11,129	14,015	14,075	14,158	13,909	14,016	13,495
Equipment and defense products, except automotive.....	9,214	9,103	8,804	9,499	9,601	8,461	25,550	25,619	25,576	25,796	25,787	26,120
Automotive equipment.....	6,293	6,112	6,186	6,563	6,464	5,511	5,255	5,202	5,147	5,301	5,310	5,256
Construction materials, supplies, and intermediate products.....	5,718	5,746	5,610	5,866	5,662	5,147	7,915	8,006	8,036	8,084	8,160	8,105
Other materials and supplies and intermediate products.....	24,301	23,971	23,617	25,029	24,755	22,816	37,417	37,379	37,177	37,633	37,459	37,503
Supplementary series: ²												
Household durable goods industries.....	2,865	2,757	2,625	2,673	2,813	2,253	4,972	4,931	4,888	5,083	4,936	4,939
Producers' capital goods industries.....	7,047	7,112	6,940	7,221	7,449	6,123	17,349	17,350	17,370	17,546	17,447	17,634
Defense products industries (old series).....	3,695	3,581	3,601	3,762	3,799	3,659	11,511	11,572	11,473	11,547	11,592	11,958
Defense products (new series)*.....	1,905	1,767	1,815	1,932	1,859	1,852	6,108	6,063	5,896	6,151	6,073	6,165
	New orders						Unfilled orders					
All manufacturing industries, total..	63,927	63,541	62,514	64,978	65,202	57,433	81,462	81,153	80,519	81,897	81,420	81,713
Durable goods industries, total.....	35,500	35,095	34,505	36,512	36,454	31,032	77,839	77,573	77,078	78,267	77,859	78,612
Nondurable goods industries, total.....	28,427	28,446	28,009	28,466	28,748	26,401	3,623	3,580	3,441	3,630	3,561	3,101
Industry groups arranged by market categories:												
Home goods and apparel.....	5,874	5,854	5,489	5,670	6,070	5,335	2,444	2,414	2,269	2,367	2,334	1,988
Consumer staples.....	12,253	12,262	12,146	11,903	12,141	11,130	44,680	44,643	44,817	44,459	44,477	43,608
Equipment and defense products, except automotive.....	9,300	8,931	9,019	9,538	9,412	8,200						
Automotive equipment.....	6,240	6,113	6,415	6,506	6,388	5,453	10,212	10,326	10,130	10,345	10,299	10,705
Construction materials, supplies, and intermediate products.....	5,605	5,941	5,596	5,912	5,879	5,243						
Other materials and supplies and intermediate products.....	24,655	24,440	23,849	25,449	25,312	22,072	24,126	23,770	23,303	24,726	24,310	25,412
Supplementary series: ²												
Household durable goods industries.....	2,909	2,883	2,601	2,707	2,887	2,247	1,991	1,943	1,819	1,914	1,879	1,598
Producers' capital goods industries.....	7,280	7,238	7,242	7,521	7,586	5,894	24,737	24,503	24,378	24,678	24,377	23,139
Defense products industries (old series).....	3,765	3,482	3,452	3,756	3,697	3,472	24,370	24,298	24,397	24,269	24,275	24,986
Defense products (new series)*.....	1,947	1,752	1,780	1,943	1,831	1,584	20,964	20,923	20,937	20,764	20,753	19,470

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and ship building industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^DPreliminary. ^rRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), ship building and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the ship building industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and ship building. Thus, it differs from the old series in that it includes defense activity in ship building and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1966-1971	
	Mar.- Apr. 1972	Feb.- Mar. 1972	Jan.- Feb. 1972	3 months			12 months Apr. 1971- Apr. 1972	Average rise	Average decline
				Jan. 1972- Apr. 1972	Oct. 1971- Jan. 1972	July 1971- Oct. 1971			
Shipments:									
All manufacturing industries.....	+1.2	+1.7	+0.8	+1.2	+2.2	-0.6	+0.8	+1.3	-1.1
Durable goods industries, total.....	+1.9	+1.7	+1.3	+1.6	+2.5	-1.0	+1.0	+2.1	-1.7
Nondurable goods industries, total.....	+0.3	+1.6	+0.3	+0.7	+1.9	0.0	+0.6	+1.0	-0.6
Total inventories:									
All manufacturing industries.....	-0.2	+0.2	+0.2	+0.1	+0.1	+0.2	0.0	+0.5	-0.2
New orders:									
All manufacturing industries.....	+0.6	+1.6	-0.8	+0.5	+3.1	-0.4	+1.0	+1.9	-1.3
Durable goods industries, total.....	+1.2	+1.7	-1.7	+0.4	+4.2	-0.9	+1.4	+3.0	-2.3
Nondurable goods industries, total.....	-0.1	+1.6	+0.4	+0.6	+1.9	+0.1	+0.6	+0.9	-0.5
Unfilled orders:									
Durable goods industries, total.....	+0.3	+0.6	+0.6	+0.5	+1.0	-0.1	0.0	+0.8	-0.8

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Apr. 1972 ^p	Mar. 1972 ^r	Feb. 1972	Apr. 1972 ^p	Mar. 1972 ^r	Apr. 1971	Apr. 1972 ^p	Mar. 1972 ^r	Feb. 1972	Apr. 1972 ^p	Mar. 1972 ^r	Apr. 1971
	Total						Materials and supplies					
All manufacturing industries, total..	101,082	101,244	101,033	101,918	101,696	101,257	32,363	32,299	32,569	32,234	32,227	32,165
Durable goods industries, total.....	64,872	64,850	64,769	65,489	65,281	65,649	18,989	18,969	19,037	18,775	18,758	19,160
Stone, clay, and glass products.....	2,244	2,220	2,235	2,328	2,304	2,352	758	754	711	754	759	747
Primary metals.....	9,581	9,564	9,459	9,537	9,541	9,291	3,659	3,686	3,682	3,474	3,516	3,183
Machinery (electrical and nonelectrical).	23,254	23,250	23,248	23,549	23,338	24,189	6,397	6,322	6,357	6,403	6,298	6,510
Transportation equipment.....	14,053	13,984	13,850	14,120	14,070	13,998	2,702	2,711	2,678	2,702	2,740	3,162
All other durable goods industries.....	15,740	15,932	15,977	15,955	16,028	15,819	5,473	5,496	5,609	5,442	5,445	5,558
Nondurable goods industries, total.....	36,210	36,294	36,264	36,429	36,415	35,608	13,374	13,330	13,532	13,459	13,469	13,005
Chemicals and allied products.....	6,639	6,711	6,684	6,736	6,830	6,846	2,277	2,330	2,299	2,287	2,332	2,381
Petroleum and coal products.....	2,333	2,328	2,378	2,311	2,315	2,327	552	547	566	561	557	550
Rubber and plastics products, n.e.c.....	2,238	2,217	2,171	2,276	2,245	2,178	674	685	648	657	646	701
All other nondurable goods industries....	25,000	25,038	25,031	25,106	25,025	24,257	9,871	9,768	10,019	9,954	9,934	9,373
	Work in process						Finished goods					
All manufacturing industries, total..	34,225	34,412	34,140	34,504	34,545	33,954	34,494	34,533	34,324	35,180	34,924	35,138
Durable goods industries, total.....	28,896	28,969	28,878	29,176	29,166	28,867	16,987	17,012	16,854	17,538	17,357	17,622
Stone, clay, and glass products.....	289	269	290	311	294	318	1,197	1,197	1,234	1,263	1,251	1,287
Primary metals.....	3,191	3,149	3,092	3,229	3,206	3,198	2,731	2,729	2,685	2,834	2,819	2,910
Machinery (electrical and nonelectrical).	10,312	10,368	10,335	10,419	10,437	10,818	6,545	6,560	6,556	6,727	6,648	6,861
Transportation equipment.....	9,920	9,869	9,810	9,960	9,898	9,375	1,431	1,404	1,362	1,458	1,432	1,461
All other durable goods industries.....	5,184	5,314	5,351	5,257	5,331	5,158	5,083	5,122	5,017	5,256	5,207	5,103
Nondurable goods industries, total.....	5,329	5,443	5,262	5,328	5,379	5,087	17,507	17,521	17,470	17,642	17,567	17,516
Chemicals and allied products.....	903	915	899	899	922	903	3,459	3,466	3,486	3,550	3,576	3,562
Petroleum and coal products.....	445	452	452	442	453	443	1,336	1,329	1,360	1,308	1,305	1,334
Rubber and plastics products, n.e.c.....	354	365	348	351	349	326	1,210	1,167	1,175	1,268	1,250	1,151
All other nondurable goods industries....	3,627	3,711	3,563	3,636	3,655	3,415	11,502	11,559	11,449	11,516	11,436	11,469

^p Preliminary.^r Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP
(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Apr. 1972 ^b	Mar. 1972 ^r	Feb. 1972	Apr. 1971	Apr. 1972 ^b	Mar. 1972 ^r	Feb. 1972	Apr. 1971
All manufacturing industries, total.....	1.59	1.61	1.63	1.74	2.13	2.14	2.17	2.35
Durable goods industries, total.....	1.84	1.88	1.90	2.08	2.53	2.57	2.61	2.83
Stone, clay, and glass products.....	1.10	1.06	1.09	1.31	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.76	1.81	1.84	1.73	1.15	1.18	1.17	1.41
Fabricated metals.....	1.80	1.93	2.01	2.06	3.10	3.25	3.32	3.51
Machinery, except electrical.....	2.37	2.42	2.53	2.90	2.73	2.76	2.83	2.99
Electrical machinery.....	1.94	1.98	1.99	2.30	2.80	2.86	2.89	3.26
Transportation equipment.....	1.71	1.73	1.69	1.90	5.99	5.98	6.03	6.24
Instruments and related products.....	2.30	2.42	2.47	2.35	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.28	1.28	1.30	1.34	0.48	0.46	0.46	0.45
Food and kindred products.....	0.95	0.96	0.98	0.99	(X)	(X)	(X)	(X)
Tobacco products.....	4.52	4.41	4.35	4.70	(X)	(X)	(X)	(X)
Textile mill products.....	(²)	(²)	(²)	(²)	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.13	1.13	1.13	1.28	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.43	1.45	1.46	1.57	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.90	0.92	0.96	0.99	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.26	1.29	1.30	1.39	(X)	(X)	(X)	(X)

(NA) Not available. ^bPreliminary. ^rRevised. (X) Not applicable.

¹Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.

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